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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/547,209

06/29/2006

Thomas Schulz

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EXAMINER

SAINT SURIN, JACQUES M

ART UNIT

PAPER NUMBER

2856

MAIL DATE

DELIVERY MODE

11/24/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/547,209	<b>Applicant(s)</b> SCHULZ, THOMAS	
	<b>Examiner</b> J M. SAINT SURIN	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006 and 26 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings filed on 08/26/05 are accepted by the Examiner.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Ammon et al. (Pub. No. US 2005/0042578 A1).

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Ammon et al. discloses FIGS. 1a and 1b show a schematic plan view (FIG. 1a), and a side view (FIG. 1b) of a movement system 1 for a driving simulator 2 for producing sensations of movement on a test person 3. The movement system 1 comprises a cabin 5 which is surrounded by an enclosure 4 and has a ride actuating system 6 (described in more detail below). The cabin 5 is fixedly arranged on a manipulator 7, which itself comprises the following components:

a rotary plate 8 for the controlled rotational movement of the cabin 5 about its vertical axis 9, a six-axle movement unit 10 for moving the assembly composed of the rotary plate 8 and cabin 5 in all six degrees of freedom (three translatory degrees of freedom and three rotational degrees of freedom),

a horizontal displacement device 11 for the controlled displacement and acceleration of the assembly composed of the six-axle movement unit 10, rotary plate 8 and cabin 5 along the two horizontal axes X and Y. The six-axle movement unit 10 is mounted on a carrier carriage 12 which is arranged to be freely displaceable on a planar base surface 13 and is pulled and/or pushed with respect to the base surface 13 by means of the horizontal displacement device 11. The assembly composed of the carrier carriage 12, six-axle movement unit 10, rotary plate 8 and cabin 5 is referred to below as base unit 14. FIG. 2a shows a detailed view of this base unit 14 in a schematic sectional view (see paragraphs 0056-0060).

Regarding claims 2-3, Ammon et al. discloses Figs. 1 and 2 by means of an air bearing 16 of the carrier carriage 12 with respect to the base surface 13 (represented

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schematically in a detailed view in FIG. 2b). In order to support the carrier carriage 12 with respect to plate surface 13 twenty seven identical air bearings 16' are used, Here, three individual bearings 16' are connected via ball and socket joints to a carrier and thus form a subgroup 17. Three subgroups 17 are in turn connected to a further carrier, in each case by means of ball and socket joints, and thus form a main group 18. Each main group 18 is in turn connected to the carrier carriage 12, in each case by means of a ball and socket joint. This results in statically determined mounting of the carrier carriage 12 on the base surface 13. Furthermore, the base surface 13 must be embodied as a very level sliding surface 20 (see paragraph 0062).

Regarding claim 4, Ammon et al. discloses both asynchronous and synchronous drives can be used as electric linear drives 43, as is the case in conventional rotational electric motors, the functional principle of an asynchronous motor is based on active primary coils 44 that can be used to generate an alternating field, which in turn is used as a current in passive secondary coils 45 (see paragraphs 0077-0078).

Regarding claim 5, Ammon et al. discloses electromagnetic linear drives 43 are used to drive the gantry bridge 26. (See schematic representation of FIG. 4 as a detailed view of the foot 29 and the gantry bridge 26 in FIG. 2a). The functional principle of these drives 43 corresponds to a "developed for representation" electric motor. The electromagnetic linear drives 43 have the significant advantage in comparison with belt drives 37 of a contactless transmission of force and, in contrast to the belt drives 37, they do not require the use of mechanically moved force transmitting elements or transmission means (see paragraph 0076).

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Regarding claims 6-7, Ammon et al. discloses in a synchronous motor the opposing field is "permanently installed" in the form of permanent magnets 45'. The alternating field which is generated by the primary coils 44 has to be moved on in synchronism with the rotor speed so that the magnetic attraction and expulsion forces between the poles of the primary coils 44 and the poles of the permanent magnets 45' can be used for driving. The phase angle between the field of the permanent magnets 45' and the field of the primary coils 44 is decisive for the magnitude of the driving force (see paragraph 0080).

Regarding claims 8-12, Ammon et al. discloses in order to prevent rotary and/or rotational movements of the base unit 14 about the vertical (Z) axis, a further lateral coupling element 55' is provided on each side of the central coupling element 55. One end of the rods 56' of these lateral coupling elements 55' is attached to the carrier carriage 12 by means of hinges 57', and is attached at the other end by means of further hinges 57' to supporting elements 58 which are displaceably guided in the rail 52 and are connected to the rotor 54 by means of spring damper elements 59. The forces which are applied to the gantry bridge 26 and the first linear displacement device 24 by the drives 34, 34' and 51 are thus passed on to the carrier carriage 12 via the coupling elements 55, 55' in order to produce movements of the base unit 14 in the horizontal plane (X-Y plane). The central coupling element 55 constitutes here a rigid connection between the rotor 54 and carrier carriage 12 in the Y direction, and thus serves to form a force connection to the base unit 14 in the Y direction (see paragraph 0084).

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J M. SAINT SURIN whose telephone number is (571)272-2206. The examiner can normally be reached on Mondays to Fridays between 9:30 A.M and 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron L. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jacques M SAINT SURIN/

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